

UNITED STATES GOVERNMENT

Memorandum

TO : Director, NIH
THRU : Director and Associate Director, NIAID
FROM : Assistant Director, RML

DATE: October 24, 1962

SUBJECT: Promotion - Dr. Willy Burgdorfer

Dr. Willy Burgdorfer received his formal undergraduate and graduate education at the University of Basel, Switzerland where, in 1951, he was awarded a Ph.D. degree with a major in parasitology-zoology and minors in bacteriology-hygiene, chemistry, and botany. After graduation, he was afforded the opportunity to do research at the Rocky Mountain Laboratory through a Postdoctorate Research Fellowship awarded by the Service. He was such an illustrious worker that he was continued under the visiting scientist program until he could, in 1957, meet citizenship requirements of Civil Service.

During the 10 years that Dr. Burgdorfer has been a member of the staff of the Rocky Mountain Laboratory, his contributions to our research program have been tremendous, considering the fact that he was engaged for 3 years on classified projects (Army) from which findings could not be published because of their impact on national defense. His research (see bibliography), which has dealt chiefly with the ecology of arthropod-borne agents and the biology of the agents in arthropods and host, reflects an unusual degree of imagination, ingenuity and industry. He developed an artificial means of feeding ticks which permits accurate quantitative measurements of the dose of microorganisms ingested by a tick. He developed a method of readily infecting ixodid and soft-shelled ticks by feeding them on shell membranes of embryonated eggs infected with leptospirae, viruses or rickettsiae. He devised a method of thin sectioning arthropods that would not disturb the in situ relationship of organs and tissues. This procedure made it possible to study the biology and development of agents in arthropod tissues. Solely through his own initiative and industry, he has become extremely proficient in the application of fluorescent microscopy to investigations concerning the biology of arthropod-borne agents. Currently, with these new techniques he is re-examining certain facets of the ecology of Rocky Mountain spotted fever rickettsiae, and already has gained information which clarifies some of the earlier observations made by H. T. Ricketts and R. R. Parker.

His approach to ecologic studies of arthropod-borne agents in nature has received recognition both in this country and abroad. By thoroughly investigating the total fauna in a variety of micro-ecologic units, he very ably clarified the relative importance of potential vectors

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and hosts of Colorado tick fever virus and identified factors responsible for fluctuations in incidence encountered in different areas. It is of interest that investigators of the encephalitides, who for 3 decades have concentrated on mosquitoes and birds, are now directing attention toward the total biologic community as Dr. Burgdorfer did in his research.

Professionally, he has been widely recognized for his accomplishments in the field of rickettsioses and arthropod-borne diseases. Last year he was invited to submit a paper for a special issue of Pathologia and Microbiologia commemorating the 70th birthday of Professor H. Mooser (see bibliography). He has just completed a paper similarly requested in tribute to Dr. Rudolf Geigy, Director of the Swiss Tropical Institute, Basel, Switzerland. Last spring he was asked to present a series of lectures on the epidemiology and control of arthropod-borne diseases at a short course sponsored by the Communicable Disease Center and he regularly presents papers at annual meetings of societies of parasitology and entomology.

In view of the excellent contributions he has made to our research efforts and the outstanding program he is presently directing, I enthusiastically recommend his promotion to GS-14.

Herbert G. Stoenner